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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
AFTERGUT, JEFF H	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 02/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/494,837	MATHEW ET AL.	
	Examiner	Art Unit	
	Jeff H. Aftergut	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-27* is/are pending in the application.

4a) Of the above claim(s) *27* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 22-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claim 22 has been amended to recite that the second fluorocarbon polymer dispersion was applied to the braid layer for eliminating gaps between the fibers of the braid layer "and forming a smooth outer surface", however there is no disclosure in the original specification of the second applied dispersion (to the braid layer) which supports this language. It is not clear that applicant was in possession of the hose assembly having a smooth outer surface wherein the same was a function of the application of the second dispersion to the braid. As such, it appears that the applicant was not in possession of the invention as is now claimed.

Claim Rejections - 35 USC § 102/103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 22-26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over E.P. 439,898.

At the outset, it should be pointed out that applicant's earliest afforded effective filing date for claim 22 is 2-23-93 (in Serial Number 08/023,417 the applicant first introduced the use of two dispersions wherein one applied a first dispersion to the tubing, braided over the same, and then applied a final dispersion over the same). E.P. '898 was printed 8-7-91 (more than a year before applicant's afforded effective filing date) and therefore the reference is available under 35 USC 102(b). The reference to E.P. '898 taught that one skilled in the art would have provided a hose with a braided glass fiber thereon. Prior to application of the glass fiber onto the tubing, the reference suggested that one skilled in the art would have applied fluoropolymeric dispersion onto the glass fibers employed in the braid. By performed this step, the finished tubing was provided with a dispersion 20 which completely coated and embedded the glass fiber braid 18 disposed about the extruded tubing 16. While the claims at hand recite two separate dispersion coating operation (one on the tubing followed by braiding and then an additional coating upon the braid) there is no reason to believe that the product produced by this process would have been any different from the product made by E.P. '898. The claims now recite that any gaps from the braided fibers were filled with the dispersion of the second coating, however, it is believed that the coating of the fibers prior to the braiding would have resulted in a finished assembly which had filled gaps between the braided fibers as Figures 2 of E.P. '898 clearly depicted the filling in of any gaps and column 4, lines 39-41 appears to suggest the same (compare Figure 2 of E.P. '898 with Figure 4 of this application, for example). Additionally, note that the coating to the braid would have provided one with filling of the gaps between the fibers of the braid

and such would have provided a mechanical locking of the fibers onto the inner hose. It should be noted that the applicant has the burden to show that the processing as claimed would have produced a materially different product. The Office is not able to produce products by the myriad of processes placed before it and make physical comparisons between the so produced products. While it is believed that the product of '898 anticipates the claimed invention, applicant is advised that the gist of the disclosed invention therein was to ensure that the braided fibers were completely embedded within the polymeric dispersion applied to the same and that the polymeric dispersion not only coated the exterior of the braid but made contact with the extruded hose as well, see column 1, line 50-column 2, line 2. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide additional coatings as deemed necessary in order to make sure that the braid was completely immersed within the fluoropolymer using the techniques of E.P. 439898.

With regard to claims 23 and 24, note that the dispersion employed in E.P. '898 was a fluoropolymeric dispersion and thus the product produced would have had the braid embedded within the fluoropolymer. Regarding claim 25, the reference suggested that surfactants would have been included within the dispersion, see column 4, lines 29-30. Regarding claim 26, the dispersion was cured (see for example column 7, lines 12-14). It is not clear whether the inclusion of a curing agent would have produced a materially different finished product or not. Additionally, the use of a curing agent in fluoropolymer dispersion is taken as conventional in the art.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over E.P. 380,841 in view of Green and any one of Sullivan or Busdiecker.

Green taught that it was known at the time the invention was made to apply a dispersion onto the tube prior to braiding about the same when making a reinforced ptfe tube. Note that the reference suggested that the processing would have resulted in a strong bond between the tube and the braiding disposed thereon. Essentially, Green evidenced that it was known in the art at the time the invention was made to apply the dispersion coating upon the core prior to braiding in order to allow the dispersion to coat the reinforcement applied to the tubular core. There is no indication that the coating operation would have provided an exterior coating about the finished assembly.

E.P. '841 taught that it was known at the time the invention was made to form a fluorocarbon tubular core member and braid upon the same. The reference suggested that it was known to braid a glass fiber material about the fluorocarbon core and subsequent to such action to apply an outer fluorocarbon coating to the assembly. The reference suggested that those skilled in the art would have applied fluorocarbon dispersion onto the braided assembly. The applicant is more specifically referred to the abstract of the reference for example. The claimed product was made by a different process than that of E.P. '841, where the claims require that one initially apply dispersion to the tube prior to application of the braided layer which was then followed

by a second application of dispersion to the assembly. The applicant has alleged that the use of the "two dip" method produced a materially different product from the single dip operation of E.P. '841. However, one viewing the combined teachings of Green and E.P. '841 would have readily appreciated that it would have been within the skill level of the ordinary artisan to coat the tube prior to the braiding operation and to apply a coating onto the braided material as an overcoat of the same. Furthermore, to ensure that the fibers were adequately adhered to the tube, it was known to provide an initial coating on the tube prior to the coating of the second dispersion of adhesive material as suggested by either one of Sullivan or Busdiecker.

Green taught that it was known at the time the invention was made to apply a dispersion onto the tube prior to braiding about the same when making a reinforced ptfe tube. Note that the reference suggested that the processing would have resulted in a strong bond between the tube and the braiding disposed thereon. Essentially, Green evidenced that it was known in the art at the time the invention was made to apply the dispersion coating upon the core prior to braiding in order to allow the dispersion to coat the reinforcement applied to the tubular core. Such an initial coating would have ensured an adequate bond between the fibers and the hose.

However, it was notoriously well known in the braiding art to apply a coating upon a tube prior to braiding followed by application of a second coating (which was the same as the first coating) in order to ensure complete encapsulation of the braided material within the coating material as evidenced by either one of Busdiecker '070 or Sullivan. Both Busdiecker '070 and Sullivan suggested that those skilled in the art at the time the

invention was made would have known to apply an adhesive coating upon the tubular core prior to braiding thereon in order to ensure that the braiding would develop a good bond with the core and following the braiding operation both references suggested that those skilled in the art would have applied an adhesive coating about the braided material. Note that in both of Busdiecker and Sullivan there is only a single layer of braided reinforcement applied to the tubular core. As it would have ensured a superior bond between the tubular core and the braided reinforcement, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a coating of the dispersion on the core in advance of braiding thereon in the operation of E.P. 380,841 as evidenced by Green wherein such a preliminary coating would have ensured a superior bonding of the fibers to the core as suggested by either one of Sullivan or Busdiecker '070.

Response to Arguments

7. Applicant's arguments with respect to claims 22-26 have been considered but are moot in view of the new ground(s) of rejection.

It should be noted that there is no declaration present with the submission of the response. It should be noted that the language proposed to be added to the claim does require that the exterior surface of the finished assembly have a smooth exterior, however as addressed above such is deemed new matter for the reasons expressed above. The applicant is additionally advised that it is believed that E.P. '898 when providing a tight braid about the core, would have intrinsically resulted in a smooth coating 20 about the exterior of the finished assembly as such tightly braided fibers

would have been adjacent each other with their gaps filled with the coating of the dispersion as suggested by the reference. There is no evidence that the finished tubular assembly in E.P. '898 was not provided with a smooth exterior and such evidence is needed in order to support applicant's contention that the exterior of the hoes was in fact not smooth.

Additionally, while several of the references previously applied suggested that those skilled in the art would have applied a second braid layer over the second coating applied, the references to either one of Sullivan or Busdiecker do not apply such a secondary braided layer. Additionally, the reference to Green expressly suggested that for a ptfe tubular core one skilled in the art would have desired to apply a dispersion to the core prior to the braiding operation (note that E.P. '841 id forming a similar types of tubing. To provide the dispersion coating both before and after the braiding operation to ensure proper joining of the braided layer to the ptfe core would have been within the purview of the ordinary artisan.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
February 9, 2005